

In the Abstract:

Please amend the Abstract as follows:

A MRAM includes: first wirings [(23)], second wirings [(21+21r)], memory cells [(14+14r)], a second sense amplifier [(3)] and a first sense amplifier [(2)]. The first wirings and second wirings [(23,21+21r)] are extended in a first and a second direction [(X,Y)]. The memory cells [(14+14r)] are placed correspondingly to positions where the first wirings [(23)] are crossed with the second wirings [(21+21r)]. The second sense amplifier [(3)] detects a state of a reference cell [(14r)] on the basis of an output from the reference cell [(14r)] provided by corresponding to a reference wiring [(21r)]. The first sense amplifier (2) detects a state of the memory cell [(14)] on the basis of an output from the reference cell [(14r)] and an output from the memory cell [(14)]. The memory cell [(14+14r)] includes a magnetic tunneling junction element having a laminated free layer. The magnetic tunneling junction element has a magnetization easy axis direction which is different from the first and second directions [(X,Y)].